

1 I Claim

2 ✓ A module for accessing small items, such as a key or token stored in a secure
3 manner in a cartridge residing in said monitor, for controlled access thereto, which module
4 comprises:

5 a housing having spaced top and bottom walls, and spaced sidewalls, normal thereto,
6 a series of spaced separator walls define a plurality of cartridge slots, adapted to each receive
7 one cartridge, said top and bottom walls each having elongated aligned recesses to receive its
8 respective separator walls to define the plurality of cartridge slots, each being open in the front
9 and closed off in part from the top wall downwardly a finite distance by a rear wall,

10 said rear wall having an inner surface and an outer surface, and having an ejection
11 spring disposed within each cartridge slot on the inner surface of the rear wall;

12 a solenoid mount plate having a series of aligned openings each opening adapted to
13 receive a portion of a solenoid there through, said solenoid mount plate being attached to the
14 outer surface of the rear wall;

15 a series of solenoids corresponding one each to the respective cartridge slots, all of
16 said solenoids being attached to said rear wall, and disposed through a respective opening in
17 said solenoid mount plate, *function?*

18 pivotal latching means, one per cartridge slot pivotally mounted to said bottom wall
19 and extending beneath said rear wall into a respective cartridge slot,

20 means to selectively energize each solenoid,

21 a series of cartridges each sized to be received by a slot within the housing, and each
22 cartridge being open at the top and having a latch receiver at the rear thereof, each latch
23 receiver adapted to engage a latching means,

24 whereby when a solenoid is energized, the solenoid impacts the respective latching
25 means to disengage the latch receiver from the latching means, and said cartridge is urged out
26 of said slot by the ejection spring associated with said slot by the spring moving from a tensed
27 position to an at rest position.

28 2. In the module of claim 1 wherein the latching means associated with each cartridge
29 is a pivot block disposed rearwardly from the associated solenoid, which solenoid has a
30 plunger, said pivot block having a latch pivotally mounted therein, and retained in an upward
31 position by a latch spring until said latch is moved downwardly by the selective energization
32 of the solenoid's plunger, at which event the latch is released from engagement with the
33 cartridge.

1 3. In the module of claim 1 wherein each cartridge is about ½" to 1" wide and made
2 of plastic, is open at the top, and has a downwardly depending metallic strip extending from
3 the rear wall, and having a recessed zone extending upwardly from the bottom by the rear
4 thereof to define a latch receiver.

5 4. A series of modules adapted to be retained linearly in a column or row, all of
6 which modules are mounted to a faceplate for disposition within a box for placement in a
7 cabinet,

8 said faceplate having a plurality of openings corresponding in size and number to the
9 total number of cartridge slots of all of the modules, each opening aligned with each slot,

10 said faceplate being attached to the series of modules,

11 each module having a series of adjacent cartridge slots for receipt of a cartridge to
12 hold small items, each cartridge having a rear latch receiver,

13 a solenoid and a latching means for each cartridge slot, said latching means, being
14 movable from a first position upward to a second position upon the energization of the
15 solenoid, said latching means being in engagement with the latch receiver on its respective
16 cartridge when said cartridge is disposed in its cartridge slot, and means to selectively each
17 solenoid.

*function
of
latching
means*

18 5. A plurality of faceplate mounted modules of claim 4 disposed within a box for
19 placement in a cabinet, each module having a plurality of cartridges in slots, and

20 means to access each cartridge selectively by at least one of an access mode or an
21 access code, wherein the access mode is electronically connected to each said module and to
22 each cartridge slot selectively, and

23 said access mode includes money receiving and magnetic card actuating means
24 associated therewith and electrically connected thereto.

25 6. A cabinet having a plurality of boxes, each box comprising a faceplate with a
26 plurality of modules mounted thereto,

27 said cabinet including electronic actuating means for said modules, mounted thereon
28 and electrically connected to selectively actuate each module,

29 said actuating means including at least one of an access code input device and an
30 access mode input device, said access mode input device being selected from the group
31 consisting of at least one of coin receiver, paper bill receiver, and credit/debit card readers,

32 each module having a plurality of removable storage cartridges for holding small
33 items, each cartridge being engageable to latching means forming a part of the module, each

function

latching means being electrically connected to said actuating means.

7. In the cabinet of claim 6 wherein the actuating means also includes an access code input device such as but not limited to a 10 key keypad, an alphanumeric input device, a voice recognition system, and a computer key stroke modem input receiver.

8. A process for accessing small items disposed in a cartridge of a module holding a plurality of cartridges in slots, wherein a plurality of modules are disposed in a cabinet, said cabinet including an actuating means electrically connected to each cartridge slot, which process comprises:

(a) inputting one an access code or access mode to send a signal to a cartridge selector in the cabinet to release a specific cartridge by energizing a solenoid to disengage a latch from the specific cartridge previously selected,

(b) removing the cartridge now unlatched to empty the contents therefrom,

(c) emptying the contents from the selected cartridge,

(d) replacing the cartridge back into its slot in its module.

9. A process for accessing small items in a secure storage module, which process comprises;

(a) inserting a source of monetary value selected from paper money, coins, a debit card and a credit card into an access point to,

(b) create an electronic signal to a microprocessor and associated logic to select a specific cartridge disposed within a module,

(c) releasing said specific cartridge from its slot in a module by unlatching a latch retaining said cartridge in a slot,

(d) removing any item stored in the cartridge,

(e) replacing the cartridge into a slot in a module and re-latching the cartridge into the module.

10. A process for accessing small items in a secure storage module, which process comprises:

(a) inputting an access mode code from a source selected from the group consisting of a telephone keypad, a computer keypad electronically linked to an access point and a voice recognition system to send a signal to a cartridge selector to disengage a latch retaining a specific cartridge in a module,

(b) urging said cartridge from a slot within a module, for content removal,

(c) removing the cartridge's contents,

1 (d) replacing the cartridge back into its slot in its module and relatching the module
2 into place.

3 *Function* 11. In the cabinet of claim 6, wherein each of the modules has a cartridge specific
4 identification means associated with it, whereby upon selection of an individual cartridge, *(the*
5 identification designator) *for that cartridge switches from an on condition to an off condition.*

6 12. A system for the storage and release of small articles comprising a plurality of the
7 modules of claim 1 and an access means electronically connected thereto, said modules and
8 said access means being disposed in a cabinet. *Function*

9 13. In the module of claim 2 wherein each cartridge is about 1/2 to 1" wide and made
10 of plastic, is open at the top, and has a downwardly depending metallic strip extending from
11 the rear wall, and having a recessed zone extending upwardly from the bottom by the rear
12 thereof to define a latch receiver.